

2. 35 U.S.C. §103(a). The Examiner has rejected Claims 1-38 under 35 U.S.C. §103(a) as being unpatentable over Nguyen (U.S. Patent No. 5,809,494) in view of Nemes (U.S. Patent No. 5,893,120).

5 Applicant respectfully disagrees.

Claims 1, 8, and 30

Amended Claim 1 appears as follows:

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1. A method of managing a database that includes a plurality of sections, each of the sections comprising a plurality of data records, the method comprising:

receiving a new data record and a key that is associated with the new data record;

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identifying one of the sections based upon the associated key of the new data record;

determining if the identified section has sufficient space to contain the new data record;

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deleting one or more data records from the identified section if the identified section does not have sufficient space to contain the new data record; and
storing the new data record in the identified section.

Applicant has amended Claim 1 to further clarify the invention by adding the limitation of also determining if the identified section has sufficient space to contain the new data. Support can be found in Claim 13, as well as other claims and in the Specification.

- 5 The Examiner states that while Nguyen did not teach deleted one or more data records from the identified section if the identified section does not have sufficient space to contain the new data record or storing the new data record in the identified section. Furthermore, the Examiner states that Nemes teaches deleting one or more data records from the identified section if the identified section does not have sufficient space
- 10 to contain the new data record and cites (col. 5, lines 16-34 and lines 53-57).

However, (col. 5, lines 16-34 and lines 53-57) assumes records are already deleted, as follows, respectively (emphasis added):

- 15 A common collision resolution strategy, with which the present invention is concerned, is called external chaining. Under external chaining, each hash table entry stores all of the records that collided at that location by storing not the records themselves, but instead a pointer to the head of a linked list of those same records. Such linked lists are formed by storing the records individually in dynamically
- 20 allocated storage and maintaining with each record a pointer to the location of the next record in the chain of collided records. When a search key is hashed to a hash table entry, the pointer found there is used to locate the first record. If the search key does not match the key found there, the pointer there is used to locate the second record. In this way, the "chain" of records is traversed sequentially until the desired

record is found or until the end of the chain is reached. Deletion of records involves merely adjusting the pointers to bypass the deleted record and returning the storage it occupied to the available storage pool maintained by the system.

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Referring then to FIG. 3, there is shown a flowchart of a search table procedure for searching the hash table preparatory to inserting, retrieving, or deleting a record, in accordance with the present invention, and involving the dynamic removal of expired records in a targeted linked list.

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The prior art of reference above doesn't teach, nor motivate determining if the identified section has sufficient space to contain the new data record; deleting one or more data records from the identified section if the identified section does not have sufficient space to contain the new data record.

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In stark contrast, Nemes does not teach all the elements of the invention, because Nemes teaches deleting at least an expired record. Support can be found in col. 3, lines 4-14, as follows (emphasis added):

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More specifically, a method for storing and retrieving information records using a linked list to store and provide access to the records, at least some of the records automatically expiring, is disclosed. The method accesses the linked list of records and identifies at least some automatically expired ones of the records. It also removes at least some automatically expired ones of the records from the

linked list when the linked list is accessed. Furthermore, the method provides for dynamically determining maximum number of expired ones of the records to be removed when the linked list is accessed.

- 5 That is, in the case wherein the database contained records that are not expired and the invention determined a section does not contain sufficient unused space to hold the data record, the claimed invention will remove certain selected data records.

In stark contrast, the feature relied on in Nemes would fail to removed data records.

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Therefore, Nguyen and Nemes alone and in combination fail to teach all the elements in Claim 1. Therefore, Claim 1 as amended overcomes the rejection and is placed in allowable condition. Accordingly, the dependent claims of Claim 1 are deemed in allowable condition. Therefore, Applicant respectfully requests that the Examiner
15 withdraw the rejection.

Claims 13 (12 and 20)

Regarding Claims 13, Application respectfully points out that the feature of determining
20 whether the selected section contains sufficient unused space to hold the data record, and if the section does not have sufficient space, the control program removing selected data records ... was not addressed in the Examiner's reason for rejecting Claim 13 (12 and 20).

All other Independent Claims

All remaining independent Claims either have the limitation cited above or have been amended to have such limitation. Therefore, in view of the argument above the
5 remaining Independent claims and their dependent claims are deemed in allowable condition. Accordingly, Application respectfully requests that the Examiner withdraw the rejection.

3. The Examiner suggested that Applicant amend Claims 36 and 37 to overcome a
10 future 35 USC Section 112, second paragraph rejection. Applicant has amended such Claims per the Examiner's suggestion. According, Applicant is of the opinion that Claims 36 and 37 overcome any rejection under 35 USC Section 112, second paragraph.

15 4. It should be appreciated that Applicant has elected to amend the Claims solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent Business Goals, 65 Fed. Reg. 54603 (9/8/00). In making such amendment, Applicant has not and does not in any way narrow the scope of protection to which Applicant considers the invention herein to be entitled. Rather, Applicant
20 reserves Applicant's right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

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CONCLUSION

Based on the foregoing, Applicant considers the present invention to be distinguished
5 from the art of record. Accordingly, Applicant earnestly solicits the Examiner's
withdrawal of the rejections raised in the above referenced Office Action, such that a
Notice of Allowance is forwarded to Applicant, and the present application is therefore
allowed to issue as a United States patent.

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Respectfully Submitted,



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